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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/757,620 | 01/14/2004 | Jeffrey Wannamaker | TVW/APP51US | 4798 |
| 59906 | 7590 | 12/08/2008 | EXAMINER | |
| Saul Ewing, LLP TVWORKS, LLC 1500 MARKET STREET 38th Floor PHILADELPHIA, PA 19102 | | | ZHEN, LI B | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/757,620 | Applicant(s) WANNAMAKER ET AL. | |
| | Examiner LI B. ZHEN | Art Unit 2194 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 20 are pending in the application.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/15/2008 has been entered.

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

4. Applicant is advised that should claim 16 be found allowable, claim 17 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Both claims 16 and 17 are drawn to a program product including software instructions/computer readable code to process a JAR file. The steps in the body of claims 16 and 17 are identical to each other. Therefore, claim 17 is a duplicate of claim 16 (i.e. same statutory class of a program product to perform the same process).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. **Claims 1 and 14 – 17 are rejected under 35 U.S.C. 102(e) as being anticipated by US 20050108690 A1 to Lau et al. [hereinafter Lau].**

7. As to claim 15, Lau teaches a method, comprising:

iteratively [step 38 is then repeated; paragraph 0073] solving application defined and target environment defined class [modify the relevant class file; paragraph 0043], field [remove any unused fields; paragraph 0075] and method names [method calls are remapped to the appropriate method calls; paragraph 0072] to interpret application byte codes presented within a ground Java Archive (JAR) file [JAR file of the reference application 14; paragraph 0039] to produce a minimized, compressed JAR file [obfuscation is performed in order to reduce the resulting target JAR and to remove any unused fields and methods; paragraph 0075].

8. As to claim 1, Lau teaches a method for processing a Java Archive (JAR) file [JAR file of the reference application 14; paragraph 0039] to provide an interpretable application file [target JAR; paragraph 0075] adapted for a target environment [target mobile device; paragraph 0065], comprising:

removing from said JAR file at least a portion of information not necessary for executing said application to compress said JAR file [obfuscation is performed in order to reduce the resulting target JAR and to remove any unused fields and methods; paragraph 0075];

mapping at least one of application defined interface [Each API call on the reference mobile device is mapped to the corresponding API call on the target mobile device; paragraph 0032], class [modify the relevant class file; paragraph 0043], field and method names [paragraph 0050 – 0052] to shorter names to compress said JAR file [obfuscating the class files of the target application; paragraph 0075]; and

mapping at least one of target environment defined interface [paragraph 0032], class [paragraph 0082], field and method names [method calls are remapped to the appropriate method calls; paragraph 0072] to corresponding target device names to compress said JAR file [paragraph 0075].

9. As to claim 14, Lau teaches a method, comprising:

removing at least a portion of at least one of non-critical archive information, class information and unreferenced member information from a Java Archive (JAR) file

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including an application to compress said JAR files [obfuscation is performed in order to reduce the resulting target JAR and to remove any unused fields and methods; paragraph 0075];

replacing at least one of interface [Each API call on the reference mobile device is mapped to the corresponding API call on the target mobile device; paragraph 0032], class [modify the relevant class file; paragraph 0043], field and method names [paragraph 0050 – 0052] with corresponding shorter interface, class, field and method names to compress said JAR files [obfuscating the class files of the target application; paragraph 0075]; and

replacing at least one of target environment defined interface [paragraph 0032], class [paragraph 0082], field and method names method calls are remapped to the appropriate method calls; paragraph 0072] with corresponding target device interface, class, field and method names to compress said JAR files [paragraph 0075].

10. As to claims 16 and 17, these are drawn to program products that correspond to method claim 1; therefore, claim 16 is rejected for the same reasons as claim 1 above.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. **Claims 2 – 13 and 18 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lau in view of “Jshrink 2.0 User Manual” hereinafter [Jshrink].**

14. As to claim 2, Lau does not specifically disclose removing unnecessary byte codes from said JAR file.

However, Jshrink teaches wherein said step of removing comprises: removing unnecessary byte codes from said JAR file [Introduction, p. 2].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Lau to incorporate the features of Jshrink. One of ordinary skill in the art would have been motivated to make the combination because this allows program code to be typically reduced by 30%-40% [p. 2 of Introduction of Jshrink].

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15. As to claim 3, Lau as modified teaches removing at least one of private unreferenced methods and fields from said JAR file [Eliminate unused fields and methods; p. 5 of Jshrink].

16. As to claim 4, Lau as modified teaches identifying within said JAR file instances of duplicate strings and remapping each duplicate string to a corresponding initial string [Rename classes whose names match strings; p. 6 of Jshrink].

17. As to claim 5, Lau as modified teaches identifying within said JAR file instances of strings [p. 6 of Jshrink]; providing a table to hold one instance of each identified string [paragraphs 0036 – 0037 of Lau]; and remapping each identified string to a corresponding string table entry [p. 6 of Jshrink].

18. As to claim 6, Lau as modified teaches at least one of the following steps:

(a) removing unreferenced constant pool entries for at least one class [Eliminate unused fields and methods; p. 5 of Jshrink];

(b) mapping constant pool entry names to fixed length names [paragraphs 0051 – 0052 of Lau]; and

(c) sorting constant pool entries by type [p. 8 of Jshrink].

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19. As to claim 7, Lau as modified teaches preferentially remapping application references to at least one of target environment defined interface, class, field and method names [paragraph 0072 of Lau].

20. As to claim 8, Lau as modified teaches a target environment obfuscation is provided in which symbols used in the target environment are replaced with shorter names [p. 6 of Jshrink].

21. As to claim 9, Lau as modified teaches an application obfuscation is provided in which symbols used in said application are replaced with shorter names that do not overlap the target device names used for target environment obfuscation [paragraph 0075 of Lau and p. 6 of Jshrink].

22. As to claim 10, Lau as modified teaches mapping constant pool entry names to names having a fixed length [paragraphs 0044 – 0064 of Lau].

23. As to claim 11, Lau as modified teaches moving strings from the constant pool to a common string pool [paragraphs 0044 – 0064 of Lau].

24. As to claim 12, Lau as modified teaches assigning a global name to at least one of application and target environment methods of each interface class [p. 7 of Jshrink].

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25. As to claim 13, Lau as modified teaches said mapping steps are only used for mapping private symbols [p. 5 of Jshrink].

26. As to claim 18, Lau as modified teaches the step of removing comprises archive tersing [p. 5 of Jshrink].

27. As to claim 19, Lau as modified teaches removing comprises class tersing [p. 5 of Jshrink].

28. As to claim 20, Lau as modified teaches replacing opcodes generated by a Java opcode generator with more compact opcodes [paragraph 0082 of Lau and p. 6 of Jshrink].

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent NO. 6980979 disclose a method for customizing Java API implementation.

US 20050021995 disclose application rights management in a mobile environment.

“Jarg: Java Archive Grinder” discloses a program that reduces the size of a Java Archive file in which java class files are stored.

CONTACT INFORMATION

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Li B. Zhen/
Primary Examiner, Art Unit 2194

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